

**STATEMENT OF BASIS (AI No. 20273)**

For the draft Louisiana Pollutant Discharge Elimination System permit No. LA0001457 to discharge to waters of the State of Louisiana.

**THE APPLICANT IS:** Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
Post Office Box 4324  
Houston, Texas 77210

**ISSUING OFFICE:** Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313

**PREPARED BY:** Valerie Powe  
Water Permits Division  
Telephone: (225)219-3135  
valerie.powe@la.gov

**DATE PREPARED:** June 4, 2009

**1. PERMIT STATUS****A. Reason For Permit Action:**

Proposed reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a five year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46\*. Upon the effective date, this permit shall replace the previously effective LPDES permit LA0001457.

- \* In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX.Chapter 11) will not have dual references.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

**B. LPDES permit -** LPDES permit effective date: October 1, 2003  
LPDES permit expiration date: September 30, 2008

The LPDES permit expired on September 30, 2008 and the application for renewal was received April 3, 2008; therefore, the permit was administratively continued.

Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 2

## II. FACILITY INFORMATION

A. Location –Louisiana Highway 182, Gibson, Louisiana

B. Applicant Activity –

According to the application, the North Terrebonne Gas Plant is an existing natural gas processing plant. The facility processes natural gas to recover liquid hydrocarbons from the gas stream.

C. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II
3. Wastewater Type: I
4. SIC code: 1321

D. LOCATION – 449 Shell E&P Court, Gibson, Terrebonne Parish (Latitude 29° 37' 43.65", Longitude 90° 55' 3.64")

E. Facility Effluent Flow – 84.82 MGD

## III. RECEIVING WATERS

STREAM – Intracoastal Waterway via local drainage to the Elliot Jones Canal

BASIN AND SEGMENT – Terrebonne Basin, Segment 120403

DESIGNATED USES -

- a. primary contact recreation
- b. secondary contact recreation
- c. propagation of fish and wildlife
- d. drinking water supply
- e. agriculture

The waterbody which is used as a drinking water source in Subsegment No. 120403 is from Bayou Boeuf Locks to Bayou Black in Houma and also includes segments of Bayous Boeuf, Black, and Chene. The discharges from the existing facility are to the Intracoastal Waterway via Elliot Jones Canal and local drainage. This waterbody is not utilized as a drinking water source. In accordance with LAC 33:IX.1111, the designated uses of drinking water supply, oyster propagation and/or outstanding natural resource waters apply only to the waterbodies specifically named in Table 3 (LAC 33:IX.1123) and not to any tributaries and distributaries to such waterbodies which are typically contained in separate subsegments.

## IV. OUTFALL INFORMATION

### Outfall 001

- A. Discharge Type: The continuous discharge of once-through noncontact cooling water; boiler sump wastewater; (including boiler blowdown, demineralizer regeneration wastewater, stormwater runoff from electrical trays and the acid/caustic loading and unloading area); and intake water from the Inlet

Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 3

Canal for temperature control combined with previously monitored effluent from Internal Outfalls 101, 201, and 301.

- B. Treatment: Outlet Canal is equipped with a skimmer and weir to retain floating oil and/or foam; outlet allows additional cooling and pH equilibration; and dilution water is added when necessary to meet temperature limitations.
- C. Location: at the point of discharge from the sampling pier located on the facility canal prior to combining with other waters (Latitude 29° 37' 20.13", Longitude 90° 55' 21.13")
- D. Flow: 84.3 MGD
- E. Receiving Waters: Elliot Jones Canal and thence to the Intracoastal Waterway.
- F. Basin and Segment: Terrebonne Basin, Segment No. 120403

Outfall 101

- A. Discharge Type: Intermittent discharge of treated sanitary wastewater.
- B. Treatment: mixing, screening, and disinfection
- C. Location: at the point of discharge from the sanitary treatment plant prior to combining with Outfall 001 (Latitude 29° 37' 34.40", Longitude 90° 55' 43.03")
- D. Flow: .0015 MGD
- E. Receiving Waters: via Outfall 001; thence to Elliot Jones Canal and thence to the Intracoastal Waterway.
- F. Basin and Segment: Terrebonne Basin, Segment No. 120403

Outfall 201

- A. Discharge Type: Intermittent (batch) discharge of process wastewater; stormwater; glycol vent condensate wastewater; condensate tank draw wastewater; a slip stream from the once-through cooling water pumps; miscellaneous wastewaters, including cooling water leaks, washdown water, fire systems test water, and safety shower and eye wash station water.
- B. Treatment: mixing, screening, and disinfection
- C. Location: at the point of discharge from the stormwater drainage pond prior to mixing with Final Outfall 001 (Latitude 29° 37' 28.97", Longitude 90° 55' 44.47")
- D. Flow: 0.520 MGD
- E. Receiving Waters: via Outfall 001; thence to Elliot Jones Canal and thence to the Intracoastal Waterway
- F. Basin and Segment: Terrebonne Basin, Segment No. 120403

Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 4

#### Outfall 301

- A. Discharge Type: Intermittent discharge of hydrostatic test wastewater.
- B. Treatment: None; if permit limits are met, discharge is routed through the aerated lagoon with sedimentation
- C. Location: Varies throughout the site
- D. Flow: Intermittent
- E. Receiving Waters: via Outfall 001; thence to Elliot Jones Canal and thence to the Intracoastal Waterway
- F. Basin and Segment: Terrebonne Basin, Segment No. 120403

### **V. PROPOSED CHANGES FROM PREVIOUS PERMIT**

#### **Outfall 001**

Enterprise requests that monitoring frequency reductions be granted for several parameters based on the guidelines in the April 1996 USEPA document, "Interim Guidance for Performance-Based Reductions of NPDES permit Monitoring Frequencies". In the current LPDES permit, Enterprise is required to test for TOC, TRC, and pH at Outfall 001 at a frequency of once per week. During the period of January 2006 through December 2007, there were a total of 104 samples taken for each of the previous parameters. Based on the Long Term Averages (LTA) of the parameters, enterprise is requesting for monitoring frequency reduction from 1/week to 1/month.

Additionally Enterprise is required to analyze the TOC concentration in the Inlet Canal and the Outlet Canal and report the net difference of the TOC concentrations for Outfall 001. The current permit limitation of Net TOC is 5.0 mg/L. For the time period of January 2006 through December 2007, the North Terrebonne Gas Plant achieved a LTA average of TOC concentration of 8.22 mg/L at the Inlet Canal and a LTA average TOC concentration of 8.26 mg/L at the Outlet Canal. For the same time period, the North Terrebonne Gas Plant achieved the Daily Maximum concentrations of 29.70 mg/L and 29.90 mg/L, respectively at the Inlet and Outlet Canals. Therefore, Enterprise is requesting that the requirement to monitor TOC at the Outlet Canal only and that the effluent limitation be changed from Net TOC of 5.0 mg/L to a Daily Maximum effluent limitation of 50.0 mg/L to be consistent with current permitting practices at similar facilities.

Based on the average flow, 84.1 MGD, of once-through noncontact cooling water for Outfall 001, the Department denies your request to change the Net TOC of 5.0 mg/L to 50 mg/L. The effluent limitations of once-through noncontact cooling water for gas plants are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Station. Accordingly, the Department is in agreement of your request to change the monitoring frequency of net TOC, TRC, and pH from 1/week to 1/month.

Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 5

#### Internal Outfall 101

Total Residual Chlorine (TRC) was established as a surrogate parameter for fecal coliform. To be consistent with the Class I Sanitary General Permit LAG530000, TRC will be removed and fecal coliform will be included for treatment of sanitary wastewater.

#### Internal Outfall 301

Visible Sheen was removed from this outfall to be consistent with the Hydrostatic Test General Permit LAG670000, effective February 1, 2008.

### VI. PERMIT LIMIT RATIONALE

The following sections set forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit.

**Outfall 001**, continuous discharge of once-through noncontact cooling water; boiler sump wastewater (including boiler blowdown, demineralizer regeneration wastewater, stormwater runoff from electrical trays and the acid/caustic loading and unloading area); intake water from the Inlet Canal for temperature control combined with previously monitored effluent from Internal Outfalls 101, 201, and 301.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type
Flow	Report	Report	1/day	Pump Curve
TOC (net)	---	5 mg/L	1/month	Grab
Temperature	---	105° F	Continuous	Grab
Chlorine, Total Residual	---	0.2 mg/L	1/month	Grab
pH	6.0 min	9.0 max	1/month	Grab

#### Site-Specific Consideration(s)

**Flow** – established in accordance with LAC 33:IX.2707.I.1.b. These requirements will be retained from the current LPDES permit, effective October 1, 2003.

**TOC** – effluent limitations are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Stations and Best Professional Judgment (BPJ) at a frequency of 1/month. As per the proposed changes from the previous permit, the frequency of 1/week will be changed to 1/month. These requirements will be retained from the LPDES permit, effective October 1, 2003.

**Temperature** – effluent limitation is retained from the NPDES permit, effective August 30, 1986 and consistent with current LPDES permit, effective October 1, 2003.

Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 6

**Chlorine, Total Residual** - effluent limitations are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Stations at a frequency of 1/month. As per the proposed changes from the previous permit, the frequency of 1/week will be changed to 1/month. These requirements will be retained from the LPDES permit, effective October 1, 2003.

**pH** - effluent limitations are established in accordance with LAC33:IX.1113.C.1. Ph shall be monitored 1/month. As per the proposed changes from the previous permit, the frequency of 1/week will be changed to 1/month. These requirements have been retained from the administratively continued LDEPS permit, effective October 1, 2003.

**Outfall 101**, Intermittent discharge of treated sanitary wastewater.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type
Flow	Report	Report	1/6 months	Estimate
Fecal Coliform	200 colonies/100ml	400 colonies/100ml	1/6 months	Grab
BOD <sub>5</sub>	30 mg/L	45 mg/L	1/6 months	Grab
TSS	30 mg/L	45 mg/L	1/6 months	Grab

#### Site-Specific Consideration(s)

**Flow** – established in accordance with LAC 33:IX.2707.I.1.b. Sanitary effluents from non-POTW are expressed as daily max per (LAC 33:IX.2709.D) These requirements will be retained from the current LPDES permit, effective October 1, 2003.

**BOD<sub>5</sub> and TSS** – effluent limitations are consistent with permits for similar operations and the LPDES Class I Sanitary General Permit, LAG530000 at a frequency of 1/6 months. Sanitary effluents from non-POTW are expressed as daily max per (LAC 33:IX.2709.D). TSS and BOD<sub>5</sub> have been retained from the LPDES permit, effective, October 1, 2003.

**Fecal Coliform** – effluent limitation is consistent with permits for similar operations and the LPDES Class I Sanitary General Permit, LAG530000 at a frequency of 1/6 months. Sanitary effluents from non-POTW are expressed as daily max per (LAC 33:IX.2709.D). These requirements will be included in the renewed LPDES permit.

Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 7

**Outfall 201**, Intermittent (batch) discharge of process wastewater; stormwater; glycol vent condensate wastewater; condensate tank draw wastewater; a slip stream from the once-through cooling water pumps; and miscellaneous wastewaters, including cooling water leaks, washdown water, fire systems test water, and safety shower and eye wash station water.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type
Flow	Report	Report	1/day	Estimate
TOC	---	50 mg/L	1/month	Grab
Oil and Grease	----	15 mg/L	1/month	Grab

Site-Specific Consideration(s)

**Flow** – established in accordance with LAC 33:IX.2707.1.1.b. These requirements will be retained from the current LPDES permit, effective October 1, 2003.

**TOC** – effluent limitations are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Stations and consistent with the Multi-Sector General Permit and Best Professional Judgment (BPJ) at a frequency of 1/quarter. These requirements will be retained from the LPDES permit, effective October 1, 2003.

**Oil and Grease** – effluent limitations are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Stations and consistent with the Multi-Sector General Permit and Best Professional Judgment (BPJ) at a frequency of 1/month. These requirements will be retained from the LPDES permit, effective October 1, 2003.

**Outfall 301**, Intermittent discharge of hydrostatic test wastewater.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type
Flow	Report	Report	1/discharge event	Estimate
TSS	----	90 mg/L	1/discharge event	Grab
TOC	---	50 ug/L	1/discharge event	Grab
Oil and Grease	----	15 mg/L	1/discharge event	Grab
Benzene	----	50 ug/L	1/discharge event	Grab
Total BTEX	----	250 ug/L	1/discharge event	Grab
Lead	----	50 ug/L	1/discharge event	Grab

Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 8

#### Site-Specific Consideration(s)

**Flow** – established in accordance with LAC 33:IX.2707.1.1.b. These requirements will be retained from the current LPDES permit, effective October 1, 2003.

**TSS** - effluent limitations are established in accordance with Hydrostatic Test General Permit LAG670000 at a frequency of 1/discharge event. These requirements will be retained from the LPDES permit, effective October 1, 2003.

**TOC** – effluent limitations are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Stations and consistent with the Multi-Sector General Permit and Best Professional Judgment (BPJ) at a frequency of 1/quarter. These requirements will be retained from the LPDES permit, effective October 1, 2003.

**Oil and Grease** - effluent limitations are established in accordance with Hydrostatic Test General Permit LAG670000 at a frequency of 1/discharge event. These requirements will be retained from the current LPDES permit, effective October 1, 2003.

**Benzene** - effluent limitations are established in accordance with Hydrostatic Test General Permit LAG670000 at a frequency of 1/discharge event. These requirements will be retained from the current LPDES permit, effective October 1, 2003.

**Total BTEX** - effluent limitations are established in accordance with Hydrostatic Test General Permit LAG670000 at a frequency of 1/discharge event. These requirements will be retained from the current LPDES permit, effective October 1, 2003.

**Lead** - effluent limitations are established in accordance with Hydrostatic Test General Permit LAG670000 at a frequency of 1/discharge event. These requirements will be retained from the current LPDES permit, effective October 1, 2003.

#### **VII. TMDL Waterbodies**

##### Outfall 001

The discharges from this facility include once-through noncontact cooling water, boiler sump wastewater (including boiler blowdown, demineralizer regeneration wastewater, and stormwater runoff from electrical trays and the acid/caustic loading and unloading area) and intake water from the Inlet Canal for temperature control combined with previously monitored effluent from Internal Outfalls 101, 201, and 301.

##### Outfall 101

The intermittent discharge of treated sanitary wastewater

##### Outfall 201

Intermittent (batch) discharge of process wastewater; stormwater; glycol vent condensate wastewater; condensate tank draw wastewater; a slip stream from the once-through cooling water pumps; miscellaneous wastewaters, including cooling water leaks, washdown water, fire systems test water, and safety shower and eye wash station water.



Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 9

### Outfall 301

Intermittent discharge of hydrostatic test wastewater

Subsegment 120403, Intracoastal Waterway was not on LDEQ's Final 2006 303(d) list. However, subsegment was previously listed for organic/enrichment low dissolved oxygen. Low dissolved oxygen concentrations in streams can be linked to both natural conditions and human activities. Natural stream conditions like low flow, high temperature, and high organic content often result in dissolved oxygen levels already below current water quality.

LDEQ's position on nutrients, as supported by the ruling in *Sierra Club v. Givens*, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. LAC 33:IX.2707.D.1.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients, where the WQMP does not otherwise require specific nutrient limitations, is achieved by limiting the discharge of oxygen-demanding substances through a BOD<sub>5</sub> limitation. Compliance with the BOD<sub>5</sub> limitation as the indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Discharges in compliance with the standard sanitary limits applied in this permit should not cause or further contribute to organic enrichment/low DO. Discharges in compliance with the TOC limit should not cause or further contribute to the dissolved oxygen impairment.

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to be established. TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

## VIII. COMPLIANCE HISTORY/COMMENTS

### A. Compliance History

There are no open enforcement actions for Enterprise Gas Processing, LLC.

### B. Inspections

An incident report was received by the Department on December 5, 2006 reporting a leak along the plant's outlet canal and the Elliot Jones Canal. A leak was discovered at a pipeline crossing along the Elliot Jones Canal. It was later verified that the pipeline was owned by Meridian Resources and was responsible for leaking condensate into the Elliot Jones Canal.

### C. DMR Review/Excursions

A review of the Discharge Monitoring Reports (DMRs) from January 2005 to March 2009 revealed no exceedances.

## IX. "IT" QUESTIONS - APPLICANT'S RESPONSES

This is an existing facility. IT questions were not required to be addressed.

Statement of Basis for  
Enterprise Gas Processing, LLC  
North Terrebonne Gas Plant  
LA0001457, AI No. 20273  
Page 10

#### **X. ENDANGERED SPECIES**

The receiving waterbody, Subsegment 120403 of the Terrebonne Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

#### **XI. HISTORIC SITES**

The discharge is from an existing facility. There should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

#### **XII. TENTATIVE DETERMINATION**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to permit the discharges described in the application.

#### **XIII. PUBLIC NOTICES**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List